Open Universities in the time of MOOCs: reaching the unreached?

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President & CEO,
Commonwealth of Learning

2 July 2014
19th Prof. G. Ram Reddy Memorial Lecture

"Open Universities in the Time of MOOCs"

2nd July, 2014, at 3.00 p.m.

Venue: Convention Centre, IGNOU

Prof. G. Ram Reddy
Vision

Since Independence, India has made tremendous progress in various fields. While its development has contributed to greater production, there has not been corresponding improvement in distributive justice.

COL’s first Vice-President 1989-91

Prof. G. Ram Reddy
Intergovernmental Organization
Created by the Heads of Commonwealth at CHOGM 1987

1987 Commonwealth Heads of Government Meeting (CHOGM), Vancouver, Canada
Learning for Development

WHAT IS IT FOR?

To help Commonwealth governments and institutions use various technologies to improve and expand learning for development
1993

IGNOU named "Centre Of Excellence for Distance Education"

Prof. James A. Maraj
COL President and C.E.O.
1989 - 1995
COL establishes The Commonwealth Educational Media Centre for Asia (CEMCA) at IGNOU
Rajiv Gandhi Fellowship Scheme

IGNOU and COL launch the Rajiv Gandhi Fellowship Scheme (RGFS), a two-year, distance-delivered Masters of Distance Education programme for education administrators.
1999 PCF1 (Brunei)
COL Fellow, 1999

‘Through a unique brand of leadership that mixed political savvy, persuasive intellectual arguments and gentle application of power he not only turned political masters around, but also academic sceptics to the cause of open learning on the sub-continent’

Prof Gajaraj Dhanarajan
March 4, 1999, Brunei Darussalam
1999, PCF1 (Brunei)

- IGNOU awarded COL President's Award: Recognising Excellent Distance Education Materials

COL President, Professor Gajaraj Dhanarajan, and Professor Abdul W. Khan, Vice-Chancellor, IGNOU
1999, PCF1 (Brunei)

Prof. M. Aslam
PCF 6, 2010 (Kochi)
Open Universities in the time of MOOCs: reaching the unreached?

- Context
- Open Education Resources: OER
- Massive Open Online Courses: MOOCs
- The Response
- Reaching the Unreached?
CONTEXT
THE COMMONWEALTH COMPRIS ES 54 DEVELOPED AND DEVELOPING NATIONS AROUND THE WORLD

Map Published by the Communications and Public Affairs Division, Commonwealth Secretariat, 2010.
Commonwealth

- 60% of the population under 30 (UN World Population Prospects 2012 Revision)
- 1/3 of the world’s poor, 2/3 of them are women (ODI, 2009);
- 23.3 million children out of primary school (Education in the Commonwealth 2012);
- 462 million adult illiterates (Education in the Commonwealth 2012)
Tertiary Enrolment in India 2004 - 2012

# Gross Enrollment Ratio in Secondary & Tertiary, 2012

<table>
<thead>
<tr>
<th>Country/Regions</th>
<th>Secondary %</th>
<th>Tertiary %</th>
</tr>
</thead>
<tbody>
<tr>
<td>India</td>
<td>69</td>
<td>23</td>
</tr>
<tr>
<td>South Asia</td>
<td>59</td>
<td>16</td>
</tr>
</tbody>
</table>

Access to Higher Education

- OECD Average: 40-50%
- Caribbean: 25%
- South Asia: 16%
- Sub-Saharan Africa: 10%
IGNOU
UKOU
AIOU
Athabasca
Open University of Malaysia
Open University of Mauritius
Open University of Tanzania
National Open University of Nigeria
Netaji Subhash Open University
Bangladesh Open University
BRAOU, Hyderabad, India
YCMOU, Nashik, India
MPBOU, Madhya Pradesh, India
UNISA, South Africa 110,000
Open Univ of Sri Lanka
TNOU, Tamil Nadu, India
Kota Open Univ, Rajasthan, India
Open Univ, Uttar Pradesh, India
Nalanda Open University, Bihar, India
DBROU
KSOU, India
Open University of Zambia
Open University of Uttarakhand, India
Open University of Assam, India
Open University of Cyprus
K.K. Hadique State University, India
The Open Polytechnic of New Zealand
Wawasan Open University, Malaysia

2014 COMMONWEALTH OPEN UNIVERSITIES
Open and distance education in mega universities

<table>
<thead>
<tr>
<th>Country</th>
<th>Institution</th>
<th>Enrolment</th>
<th>% of Campus Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pakistan</td>
<td>AIOU</td>
<td>456.126</td>
<td>22</td>
</tr>
<tr>
<td>China</td>
<td>CCRTVU</td>
<td>2,300,000</td>
<td>40</td>
</tr>
<tr>
<td>India</td>
<td>IGNOU</td>
<td>1,187,100</td>
<td>35</td>
</tr>
<tr>
<td>UK</td>
<td>OU</td>
<td>203,744</td>
<td>50</td>
</tr>
</tbody>
</table>

*Unit cost per student as a percentage of the average for other universities in the country, NKC, 2004.
Social Exclusion of Education in India: By Caste and Gender

Source: Census of India 2001 (http://www.censusindia.net/results/C Series)
OPEN EDUCATION RESOURCES: OER
OER and Textbooks

- **Brazil**: a study found that for 75% of students at University of São Paulo, the cost of acquiring books was higher than the family’s monthly income.

- **South Africa**: R 1.5 billion for textbooks: Department of Basic Education decides to develop OER textbooks.
Open Textbooks in India

- **NCERT:** National Repository of OER with CC BY-SA license
- **Tamil Nadu State:** 200 school textbooks (Tamil, English, Urdu, Telugu) open for browsing
Top Institutions

- National Open University of Nigeria (NOUN)
- National Programme on Technology Enhanced Learning (NPTEL)
- The Open University (OUUK)
- University of Cape Town
- National Council of Educational Research & Training (NCERT)
- Wikibooks
- Virtual University of Pakistan (VUP)
- Tamilnadu Textbook Corporation
- Gresham College
- University of Oxford
Key trends in OER 2014

- Developing countries have emerged as significant contributors
- Policies adopted: e.g. India, Antigua & Barbuda
OER for Universities?

- Reduce costs
- Enhance access
- Improve quality
Implementing OER?

- Systemic change required
- Senior level champion vital
- Faculty require support
- Community must take ownership

‘Four Lessons Learned from implementing Textbook Zero Programs’
June 3, 2014 http://bccampus.ca/2014/06/03/textbook-zero/
Vision

...Open Universities in the country should form a network in which they would use the courses developed by each other. If a good course has already been produced by one of the members of the Network, so far as possible other institutions should not duplicate it.

From Walter Perry in Ian Mugridge ed Founding the Open Universities, 1997
MASSIVE OPEN ONLINE COURSES: MOOCS
Massive Open Online Courses: MOOCs

Coursera

Future Learn

Udacity

edX
The ‘Massive’ in the MOOC

270,000
Students enrolled in Udacity’s Computer Science MOOC

200,000
US University first-year students intending to study Computer Science in 2,968 4-year degree granting institutions

Profiles of MOOC learners

- a small fraction of registered persons complete/even start a course
- 841,687 people registered for MOOCs
  - 35% of them never engaged with the content,
  - Around 5% of completed their courses
  - Typical registrant: “male with a bachelor’s degree who is 26 or older”.

Andrew Ho et al, MIT-Harvard research study 2014
MOOC: Global Reach

841,687 in MIT-Harvard MOOCs
- 72% of the registrants from outside the U.S.
- 2.7% were from Least Developed Countries

35,000 in University of Pennsylvania MOOCs
- 15% were from BRICS
- 20% were from other developing countries

Ho et al 2014; Holland and Tirthaly 2014
Courses Offered

- Mathematics, 6%
- Science, 30%
- Arts and humanities, 28%
- Information technology, 23%
- Business, 13%

Why Do Universities MOOC?
(Columbia U Research Study by Hollands and Tirthali 2014)

- Extending the reach
- Building the brand
- Improving economics
- Improving educational outcomes
- Innovation in teaching and learning
- Conducting research on teaching and learning
Dynamic pedagogy: Learning Analytics

- Predictive Systems can be developed
  - An Early Warning System: an upcoming drop out can be noticed

- Recommender Systems can be built
  - Tutor/Coach can observe frequent attempts and failures in a particular activity and recommend remedial activities
Advantages of Learning Analytics

- Creates wholly new personalization pathways for learning from masses of data
- Continuous feedback for ongoing improvement
- Improved outcomes
- Quality of learner experience enhanced
Services Management

- Unique ID per learner across courses
  - Especially for those seeking certificates
    - Use of typing speeds
    - Iris scans
    - Other ID management

- Advanced records management
  - Critical for maintaining learner access and performance data
Services Management

- Online library and documentation support

- Discussion Forums
  - and similar activity spaces
  - Important for peer-peer and peer-mentor interaction
Advantages for Open Universities

- **Strong in contemporary pedagogy**
  - Already advanced in blending media and I-Design
  - Established Culture of production teams
  - Experience in content development

- **Strengths in services management**
  - Consistency and timeliness of delivery
  - Established practices in Contact center development
  - Similarly in exam center management
Credentialling

- Certificates of completion
- Badges
- Invigilated exams at testing centres
- Credits
Implications for Higher Education

- ‘Unbundle’: Delinking where we learn from where we receive qualifications;
- Diversify provision from full services to services that the learner can choose, increasing flexibility;
- Collaboration rather than competition.
Vision

A student who has joined one open university should be free to take courses from other open universities.

From Walter Perry in Ian Mugridge ed Founding the Open Universities, 1997
THE RESPONSE OF UNIVERSITIES
FutureLearn

- Founded in 2013; still in beta phase
- 38 partners from UK and OECD countries
- Own platform, stressing user’s media experience
- 750,000 joiners; 29 courses
- Average participation rate: 13% of learners
OU Netherlands MOOC
Beijing Open University Open Online Courses

- Seven offered
- Focus on skills development
Virtual U of Pakistan Open Courseware

FIND COURSES
- Accounting, Banking & Finance
- Computer Science/Information Technology
- Economics
- English
- Humanities Distribution
- Law
- Management
- Marketing
- Mass Communication
- Mathematics
- Physics
- Probability & Statistics
- Psychology
- Sociology

MOST POPULAR COURSES

<table>
<thead>
<tr>
<th>Sr. #</th>
<th>Code</th>
<th>Title</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CS101</td>
<td>Introduction to Computing</td>
</tr>
<tr>
<td>2</td>
<td>CS201</td>
<td>Introduction to Programming</td>
</tr>
<tr>
<td>3</td>
<td>CS006</td>
<td>Web Design and Development</td>
</tr>
<tr>
<td>4</td>
<td>ENG101</td>
<td>English Comprehension</td>
</tr>
<tr>
<td>5</td>
<td>ACC111</td>
<td>Fundamentals of Auditing</td>
</tr>
<tr>
<td>6</td>
<td>MGT101</td>
<td>Financial Accounting</td>
</tr>
<tr>
<td>7</td>
<td>CS304</td>
<td>Object Oriented Programming</td>
</tr>
<tr>
<td>8</td>
<td>CS301</td>
<td>Data Structures</td>
</tr>
<tr>
<td>9</td>
<td>CS302</td>
<td>Digital Logic Design</td>
</tr>
<tr>
<td>10</td>
<td>ENG201</td>
<td>Business and Technical</td>
</tr>
</tbody>
</table>

FEATURED COURSES
University of the Philippines Open University
Faculty of Information and Communication Studies
MOOCs Portal

About @ral

@ral is the online presence of the UPLB Open University Faculty of Information and Communication Studies (UPOU/FICS) Massive Open Online Course or MOOC. Through @ral, learners can register to a free MOOC course and acquire the knowledge and skills they need.

Our vision is to provide free courses through modern ICTs where learners can access quality courses at their own time, pace, and part. Our hope is to contribute to the massing of empowered and productive citizens who are able to respond to the fast-changing needs of the present time.

We also view @ral as a vehicle to connect learners to their respective communities of practice and to the global community where learning never stops.

MOOCs

The MOOC courses offered through @ral will adopt the framework of Massive Open Online Course or MOOC. Courses will be offered following the Quality Circle approach by UPOU. However, a panel of experts will be engaged to assess the quality of the course delivered. The Faculty of Information and Communication Studies (FICS) teacher who will handle the course will be assisted by the academic staff of the FICS, the technical support personnel, and the language officer. Openness will not only apply to learning in this course but will also be at the heart of Open Educational Resources (OER) in putting together course content. The attributes of the usual MOOC, i.e., peer assessment, will also characterize UPOU courses offered through @ral. Relevant peer support will be provided and appropriate assessment mechanisms will be developed. The other components of the regulatory and quality assurance framework for distance education and online learning will also be integrated into the course implementation.

Experts from the industry and other academic institutions will be engaged to develop and teach the courses.

Available courses

- Digital Literacy for Women and Youth Employment and Entrepreneurship (2nd Run)

2nd Run of the Training of Trainers for the Digital Literacy for Women and Youth Employment and Entrepreneurship Course.
NPTEL India MOOC

- Focused on IT Skills
- Curriculum based on IT industry inputs
- Jointly offered with NASSCOM
- Google Platform
- Certificates through proctored testing at TCS centers
- 52000 joiners; about 10000 participants
- Testing costs INR 2000
MOOC for Development (M4D)

- Designed and offered by COL and IIT-Kanpur
- Delivery compatible with mobiles
- Experts from different countries for online mentoring
- 2286 sign ups from 116 countries
- 23% of learners certified

Photo source: http://www.m4dev.org/m4d.pdf
Learning from COL’s M4D MOOC

- Branded MOOC platforms are not necessary
- High quality of materials and teaching critical
- High levels of learner engagement is a must
- High reliability of IT platforms essential
- Possible to deliver quality at low cost
  - USD 19 300 compared with a min of USD 50 000 for branded MOOC (can be as high as USD 500 000)
  - Cost per certificate for a seven week course is about US$ 58 (compared to US$ 240 or higher in branded ones)
REACHING THE UNREACHED?
The Digital Divide (Commonwealth countries)

Source: International Telecommunications Union
ICT in India 2004 - 2012

OER & MOOCs by themselves will not be able to address inequality
Open Educational Resources Expand Educational Inequalities
Open Educational Resources Can Expand Educational Inequalities

- ... teachers working in schools serving low income students simply can't make as much use of.... the technology ..... because they lack the planning time, broadband access, etc. In this model, schools with greater fiscal and human resources have more capacity to take advantage of even free and open resources.

Justin Reich in https://edutechdebate.org/oer-and-digital-divide/open-educational-resources-expand-educational-inequalities/
MOOCs: Reaching the Unreached?

- The idea of MOOCs is that we are going to educate the children in China and Africa. A surprising number of people in the Financial Engineering and Risk Management MOOC were people who work on Wall Street. A number of Ph.D.s were taking it too. (Sreenivasan, formerly at Columbia University, 2014).
We know that there is still something about MOOCs that isn't particularly helpful, or isn't particularly appealing, to people who have not gotten a degree.

Vignare, University of Maryland University College, 2014
Strategies should address both economic and social issues.
New models

- Participatory approach
- Decentralised organisational structures
- Learner centricity
- Targetting mechanisms
Towards reaching the unreached

- emphasis on people, rather than on technologies alone
- knowledge as a social product emerging as an ‘interface’ of machine, individual, society
- learning as a process that leads to development
Vision

Indian higher education is going to be tested for its resilience and vitality. The institutions of higher education and the academic community will have to live up to this challenge. Else, they will be rendered vestiges mutely and helplessly witnessing changes around, which they are not able to comprehend or catch up with.

From Convocation Address in Indian Statistical Institute, Calcutta, 1994
THANK YOU
www.col.org